

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) Embedded electric lock, of the type comprising a first case body which can be mounted embedded on a jamb of a moving frame of a window and door frame and has a first head wall, and a second case body which can be mounted embedded on a corresponding jamb of a fixed frame of the window and door frame and which has a second head wall, wherein the first body carries a latchbolt with an end beveled nose and elastic means to cause the latchbolt to return to a closing position of the lock, where the nose protrudes through an opening in the first head wall, wherein the second head wall has a selvage for the nose to be engaged therein in the closing position of the window and door frame to lock the moving frame relative to fixed frame, and wherein the second body carries an electromechanical release device to controllably disengage the nose from the selvage,

characterized in that the electromechanical release device comprises:

- a loading bolt elastically returned to a position where it protrudes from an opening of the second head wall, and suitable to be caused to retract within the second body and be held at the retracted position under the thrust of the first head wall,
- a pusher movable between a retracted position in the second body and a forward position in the selvage to expel the nose from selvage and release the lock,
- elastic means to repulse the pusher to the forward position,
- an electromagnet that can be excited to release the lock,
- an escapement system associated to the electromagnet, suitable to hold the pusher at the retracted position and to release the pusher to allow it being moved to the forward position when the electromagnet is excited, and
- a kinematic mechanism interconnecting the loading bolt and the escapement system such that, when the loading bolt is caused to retract in the second body and the electromagnet is deexcited, the pusher is held at the retracted position of the escapement system, and when the electromagnet is excited, the escapement system releases the pusher and the elastic

means are unloaded and move it to the forward position,

characterized in that the kinematic mechanism interconnecting the loading bolt and the escapement system comprises:

— a rocker idler arm with a fulcrum placed between the loading bolt and the pusher, with a spring arm engaged by the loading bolt, with an opposite rigid arm tied to the pusher and with an end escapement tooth prolongating the rigid arm towards the electromagnet, and

— an anchor in the form of a swinging finger movable by magnetic attraction towards the electromagnet and elastically returned to a moved away position from the electromagnet, the anchor having a stop groove against which the escapement tooth engages when the anchor is at said moved away position, to prevent that the idler arm may move in the direction corresponding to the motion of the pusher towards the forward position through the selvage,

— the arrangement being such that when the loading bolt is caused to retract, the idler arm, due to the engagement of the escapement tooth thereof with the stop groove of the anchor, is held stopped in a position corresponding to the retaining of the pusher at the retracted position and said spring arm is elastically loaded, whereas when the anchor is attracted by the electromagnet the stop groove disengages from the escapement tooth and the idler arm snaps to bring the pusher to the forward position due to the elastic tension of the spring arm being unloaded.

2. (Cancelled)

3. (Currently Amended) Electric lock according to claim 2 1, characterized in that the spring arm consists of a spiral spring wound around a pin being the fulcrum of the idler arm, having a central portion integral with the pin and having a substantially radial peripheral appendix against which an end of the loading bolt opposite the one corresponding to the second head wall is abutted.

4. (Previously Presented) Electric lock according to claim 3, characterized in that the pin

of the idler arm carries a square bush around which a square central turn of the spiral spring is keyed, and in that the angular position of the square bush relative to the pin can be set to the purpose of adjusting the elastic load of the spring.

5. (Currently Amended) Electric lock according to claim 2 1, characterized in that the swinging finger being the anchor is elastically returned to the moved away position from the electromagnet by a spring with a turn portion wound around a pin being the fulcrum of finger and with two branches tending to elastically approach each other, and the first one abutting against the anchor and the second one against a stationary inner portion of second body.

6. (Previously Presented) Electric lock according to claim 1, characterized in that the loading bolt comprises a loading nose linearly sliding between the protruding and retracted positions and a cam rotatable within the loading nose, having a beveled face to be engaged by the first head wall and having a side notch suitable to encompass a side edge of the corresponding opening of second head wall and a finger to be engaged behind the side edge, according to such an arrangement that when the first head wall engages the beveled face of the cam in the closing direction of the moving frame, the cam is caused to rotate relative to the loading nose around a fulcrum being defined by the engagement of finger to said side edge, and this rotation of cam is turned, by a force-multiplying effect, to a linear backward movement of the loading nose.

7. (Currently Amended) Electric lock according to claim 2 1, characterized in that the loading bolt is elastically sent back to the forward position by a compression helix spring, independent from the spring arm of the rocker idler arm and interposed between the bolt and a stationary wall of second body.